
TOWN OF BARRINGTON

25 Watson Ave

Site Development Strategy

September 6, 2022



Photo: Lila Delman Real Estate



41 MADISON AVE
25TH & 31ST FL
NEW YORK, NY
10010

 **SignalWorks**
Architecture
11 ALEPPO STREET
PROVIDENCE, RHODE ISLAND



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EXECUTIVE SUMMARY

Project Overview

The town of Barrington is undertaking a study to determine how they should re-zone the parcel at 25 Watson Ave, the former Carmelite Monastery, that they currently own. Over the course of this study, we have advanced three phases: Discovery, Design Funnel, and Development Strategy.

The Discovery Phase involved engaging local stakeholders to garner feedback regarding the prospective use, intensity, and quality of future development, an assessment of the developability of the site and its existing building, as well as a market study to determine market receptivity to future development. The Design Funnel reviewed a series of development typologies, in a range of densities, to help the committee express their priorities, desires, and diversity of views on the site. Typologies included Adaptive Re-use of the existing building, semi-detached single-family cluster dwellings, and new multi-family. Site use strategies identified natural buffer zones as well as outdoor public and private usage facilities. The current Phase – Development Strategy – stress tests the Design Funnel Schemes that the committee was most amenable to. This includes a financial analysis to ascertain developer profitability and therefore interest, a traffic study regarding the capacity of local streets, and a preliminary zoning analysis regarding strategies to create a zoning change based on the committee's favored development typologies.

Initial Conclusions

Financial Feasibility Analysis

Except for the building reuse option involving a 21,000 s.f. addition and resulting in 44 multi-family rental units, the reuse of the monastery building provides a negative financial return. And while the reuse option involving 44 units exhibited a positive financial return rate, it is far too low a rate of return relative to the project's risk to induce a private developer to undertake the project. Like the building reuse options, the cottage court new development options were challenged to produce anything other than a sub-par positive return rate and, thus, would fail to attract private investment for its production.

Traffic Study

The Project is not expected to have a significant impact on the operations of the surrounding roadway network. The estimated trip generation for Project alternatives 1 through 3 are shown to generate up to 34 additional new trips when compared with the nine residential lots under Base conditions. Conversion of the dwelling units to age-restricted housing is shown to reduce the daily trip generation by as much as 76 percent.

Zoning

Neither of the two uses are allowed in residential areas under current zoning. Multi-Family Housing is allowed in some business zones, and would need to be allowed on this site specifically and Semi-Detached Single Family Dwellings would need to be defined, and allowed. A new zone could be created that allows this use specifically, but context and precedent should be considered, along with consideration the zone's use in future development projects. There are a number of options to create the "performance requirements" identified by the committee, including setbacks and greenspace, and any zone proposal should be analyzed to review all uses that it allows by right, not just the intended use.



PROJECT SUMMARY

Discovery Timeline & Scope

This project began with a Discovery Process to garner public input regarding the reuse of the Carmelite Monastery at 25 Watson Ave in Barrington. At the same time, a Building Re-Use report was developed to assess the current condition and configuration of the existing structure. A market study was undertaken to ascertain what scale and type of development project would be market receptive.

The discovery process included an online forum (July – December 2021), a Survey of the Ad Hoc Committee members (November 8, 2021), Two Public Meetings (November 15 & December 15, 2021), and Three Stakeholder group interviews (December 2021).

Feedback was wide-ranging, but recurring themes included:

- Keeping the residential nature of the existing community a priority
- The process to be transparent and incorporate community input
- Strong support for affordable senior housing, although the site lacks direct access to services
- Interest in Community use/benefit, but the impact on the neighborhood is a legitimate concern

The Building Re-Use report addressed the redevelopment feasibility of the site, as well as the building condition. General site zoning, soil condition & utility availability was reviewed, and elements of the existing building that would need to be replaced were assessed. A site visit by the Architect, Structural Engineer & Landscape Architect was undertaken on December 17, 2021, and a variety of existing building reports were reviewed (including Environmental, Soil & Building assessments), Existing Conditions Drawings were reviewed and research was conducted with the town, GIS & local utility contacts.

General Conclusions were that how zoning is changed will be the largest driver to site redevelopment – the site's natural resources (from its view, to soil type to local utility availability) make it a prime development site, able to physically support a larger, denser development than local zoning, development patterns and preferences would allow for.

The existing building itself does not have substantial re-use value, beyond its physical structure; nearly all systems would need a full replacement. Its physical structure also provides some barriers to redevelopment – lower than average ceiling heights, floor types non-conductive to structural modifications, and a frame that generally does not support a rooftop addition of a smaller footprint.

The market study was able to demonstrate that the market has an exceedingly high demand for housing, at nearly every level of income and typology. While beyond the scale of what local typologies would suggest feasible on this site, if 100s of units were provided in this location, they would not overwhelm market demand. The conclusion was that no matter what is provided, it would be the desired product for the market.

Additionally, the study identified that Multi-Family, “Missing Middle”, Starter Homes, Senior Housing, and Affordable Housing are all in low supply in the local area, and there could be local community benefit from providing these typologies.



PROJECT SUMMARY

Design Funnel Timeline & scope

The next phase – the Design Funnel— created test fits of prospective Design Schemes. This was a method to incorporate the strong desire for transparent community input and ensure that the design is meaningfully related to the existing neighborhood.

A series of three Progressive Design Funnel meetings with the Ad-Hoc committee were held on Jan 31, 2022, Feb 28, 2022, and March 28, 2022, with a Joint Committee review session on April 19th, 2022.

In these meetings, the committee reviewed site plans for a variety of development patterns including:

- Single Family lots of varying density
- Adaptive Re-use of the existing Building
- Semi-Detached single-family cluster developments (ie, cottage courts/townhouses, etc.)
- New Multi-family building
- Mixes of Adaptive Re-Use and Semi-detached single-family cluster

Most schemes explored densities in the 20 to 40-unit range. While the site can support additional development, the review was limited to the development density supported by the committee.

Site Plans included preserving key buffer areas on the North and West Sides of the site, creating walking paths, and identifying potential community use (and local resident use) areas.

At the Design Funnel's conclusion, three Site Development Typologies were presented, each with a range of densities:

- Existing Building Re-use, with small or medium-sized addition
- Existing Building Re-use with semi-detached single-family structures
- New Multi-family building at the footprint of the Existing Building

Strategy Goals

The final aspect of the analysis is to review the implications of the Site Development Typologies at a variety of prescribed densities. Included in this is a construction cost estimate of these schemes, as well as potential sale/rental data to create a fiscal impact study to determine whether the prospective development schemes would generate sufficient profitability to be receptive to a developer, and yield a residual land value sufficient to the town.

Additionally, a basic traffic report was undertaken to estimate the additional traffic load at peak hours, and a preliminary zoning report was begun to identify what pathways to create a zone / use combination that would allow the prospective Site Development Typology & Density.



DESIGN FUNNEL NARRATIVE

Option 1

Existing Building & Add Renovation

	Total SF	Overall # of Units	Parking Spaces
Re-Use Building	29,400	24	51
Re-Use Building w/ 12,000sf Addition	41,400	32	54
Re-Use Building w/ 21,000sf Addition	50,400	44	87

This scheme incorporates the various design schemes related to re-using the existing building as multi-family housing.

In the “Renovation Only” scheme, the existing parking lot is left in place, with landscape improvements. In the “Small Addition” scheme, the parking is split between the upper and lower lots with potential community-use site parking at the lower level. The “Large Addition” scheme shows a large, but efficient single parking location.

The site illustration for “Small Addition” is developed further, but the implications are consistent with all three options: potential community-use green space on the lower (south) portion of the site, providing a quarter-mile loop walking path, as well as resident-specific outdoor space adjacent to the building. An overlook or other passive community amenity is strategically located to take advantage of the view of the water.

Site access to Freemont Ave was included to alleviate potential traffic concerns and the 50 ft buffer found in the adjacent R-40 zoning is maintained as well as the existing mature vegetation along the north, west, and south property line.

In both “Addition” options, the building addition is located in such a location that it is largely shielded from view Watson Ave by the existing building, and from Freemont Ave by the natural buffer.

In all these schemes the existing Chapel is slated for re-use as community space and the less useful interior space without natural light on the ground floor is slated for building service and utility. The residential units – a mix of one and two-bedroom units – utilize a double-loaded corridor and have a mix of unit sizes and views, which can help to create a variety of different market price points within the building.

The building would be proposed to have all new mechanical and electrical systems, new windows, roof, and interior insulation, and would be well situated for solar panels. An elevator addition outside the mass of the existing building allows access to all three levels.



BUILDING RENOVATION
18- 24 UNITS



ADD/RENO 44 UNITS

BUILDING RE-USE	44 UNITS
TOTAL UNITS PER ACRE=	6.28/ACRE
PARKING (1.5/UNIT)=	66 SPACES
VISITOR/PUBLIC=	21 SPACES
TOTAL PARKING=	87 SPACES



GREEN SPACE LAYOUT	PARKING	MULTI FAMILY BLDG AND COTTAGE COURT	ACCESS FROM WATSON AVE
TOTAL TRAIL SYSTEM = .33 MILES	MULTIFAMILY (1.5/UNIT)=	TOTAL UNITS=	DENSITY NOTES:
WOODS (PRESERVED) = Approx. 3 ACRES	SITE PARKING=	32	1. CURRENT SCHEME IS SHOWING AN ADD/RENOVATION WITH 32 UNITS
	TOTAL PARKING=	4.6/ACRE	TOTAL 22 (1) BEDROOM AND (10) 2 BEDROOMS.
			2. IF LESSER DENSITY IS DESIRED ADDITION COULD BE ELIMINATED AS SHOWN ON THE UPPER RIGHT.
			3. IF ADDITIONAL DENSITY IS DESIRED ADDITION CAN BE ELONGATED AS SHOWN ON THE LOWER LEFT.



Option 2

Building Re-use with Cottage Courts

	Total SF	Overall # of Units	Parking Spaces
Re-Use Building w/ Minimal # of Cottages	41,800	32	58
Re-Use Building w/ Medium # of Cottage	44,900	34	62
Re-Use Building w/ Maximum # of Cottage	51,100	38	70

In all three of these options, it is assumed that the existing building would be renovated as-is and a series of single-family semi-detached clusters would be developed to the north of the site.

The site development is consistent with Option 1: potential community-use green space on the lower (south) portion of the site, providing a quarter-mile loop walking path, as well as resident-specific outdoor space adjacent to the building. An overlook or other passive community amenity is strategically located to take advantage of the view of the water.

The additional buildings are located in such a way that it is largely shielded from view Watson Ave by the natural buffer, with a series of buildings facing Freemont in a typical single-family development pattern.

For all development plans, the 50 ft buffer found in the adjacent R-40 zoning is maintained as well as the existing mature vegetation along the north, west, and south property line. Site access to Freemont Ave was included to alleviate potential traffic concerns.

It should be noted that site infrastructure stays relatively constant for all development options; additional units are able to be added without substantial site, or infrastructure impact. Two parking lots are located to service the renovated building both at the first and lower level. Parking for the cottage units includes a garage and (1) driveway space.

The footprints shown on the site plan are design adaptable; illustrations show that the typical footprint could be developed as an 800sf 1-bed, 1-bath with a patio to a 1500sf 2-bed, 2-bath + office w/ garage. This allows the developer, market, and even planning board to give input into a prospective scheme while illustrating density and configuration.



GREEN SPACE LAYOUT

TOTAL TRAIL SYSTEM = .33 MILES

WOODS (PRESERVED) = Approx 3 ACRES

GREEN SPACE = Approx 5 ACRES

* NOTE TOTAL GREEN SPACE INCLUDES WOODS PRESERVED

SCALE: 1" = 40'

PARKING

MULTIFAMILY (1.5/UNIT)= 36 SPACES

COTTAGES = 20 SPACES

SITE PARKING= 6 SPACES

TOTAL PARKING= 62 SPACES

MULTI FAMILY BLDG AND COTTAGE COURT

SITE BREAKDOWN

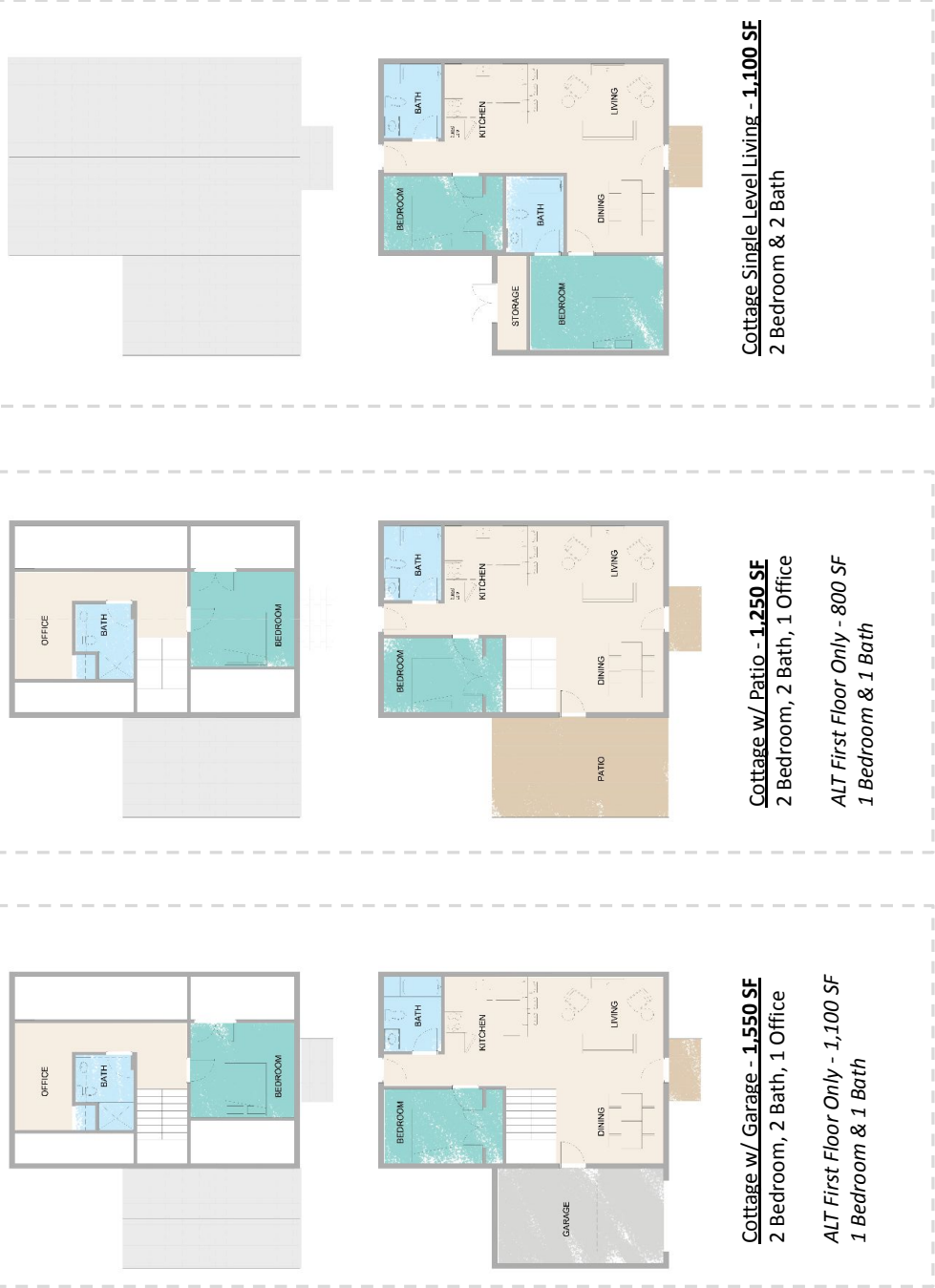
COTTAGE COURT UNITS= 10

BUILDING= 24

TOTAL UNITS= 34

UNITS PER ACRE= 4.8/ACRE

- DENSITY NOTES:
1. CURRENT MULTIFAMILY BUILDING IS SHOWING A 24 UNIT BUILD-OUT WITH 22 (1) BEDROOM AND (2) 2 BEDROOMS.
 2. IF LESSER DENSITY IS DESIRED BUILDING COULD UTILIZE A 18 UNIT BUILD-OUT WITH MORE 2 BEDROOMS. AN ALTERNATE OPTION IS TO ELIMINATE COTTAGE UNITS
 3. IF ADDITIONAL DENSITY IS DESIRED ADDITIONAL UNIT LOCATIONS ARE DASHED IN RED



Carmelite Monastery - EXPLORATION: SEMI DETACHED

2145 - 25 Watson Ave - April 19, 2022



Option 3

New Multi-Family Building

	Total SF	Overall # of Units	Parking Spaces
New Construction – Lower # of Units	32,100	24	36
New Construction – Higher # of Units	52,000	39	66

*Note: this scheme was not included in the financial feasibility analysis after the May 2022 Fiscal Town Meeting voted to *not* to allow the demolition of the existing building*

In this scheme, a new multi-family building in the general location of the existing structure was proposed. It utilizes a similar site strategy, built into the hillside, with two stories above grade on the upper and three stories exposed on the lower.

The site development is consistent with Option 1: potential community-use green space on the lower (south) portion of the site, providing a quarter-mile loop walking path, as well as resident-specific outdoor space adjacent to the building. An overlook or other passive community amenity is strategically located to take advantage of the view of the water.

Site access to Freemont Ave was included to alleviate potential traffic concerns and the 50ft buffer found in the adjacent R-40 zoning is maintained as well as the existing mature vegetation along the north, west, and south property line. The natural buffer on the North and West sides of the site is maintained in both options.

The site illustration for “Lower Density” is developed further; the “Higher Density” option demonstrates a single grouped parking area without Freemont Ave access, this scheme however could utilize the “Lower” density site strategy.

The Lower Density option utilizes a single-loaded corridor with large units facing the southern view; the Higher Density option utilizes the same footprint but adds smaller units facing away from the view. The mix of unit sizes and views can help to create a variety of different market price points within the building. Community space is provided at the interior corner of the building.

ALT. NEW BUILDING
OPTION



AREAS OF EXPLORATION: NEW BUILDING
25 WATSON AVE, BARRINGTON RI



NEW BUILDING SHOWING 39
UNITS

SITE BREAKDOWN	
TOTAL UNITS=	40
UNITS PER ACRE=	3.7/ACRE
PARKING (1.5/UNIT)=	60 SPACES
VISITOR/PUBLIC=	4 SPACES
TOTAL PARKING=	64 SPACES
PUBLIC PARK LAYOUT	
TOTAL PARKING=	20 SPACES
GREEN SPACE LAYOUT	
TOTAL TRAIL SYSTEM =	25 MILES
WOODS (PRESERVED) =	3.2 ACRES
GREEN SPACE =	5 ACRES

NEW BUILDING		PARKING		GREEN SPACE LAYOUT	
SITE BREAKDOWN		MULTIFAMILY (1.5/UNIT)=		TOTAL TRAIL SYSTEM = .33 MILES	
TOTAL UNITS=		SITE PARKING=		WOODS (PRESERVED) = Approx 3 ACRES	
UNITS PER ACRE=		TOTAL PARKING=		GREEN SPACE = Approx 5.1 ACRES	
24		36 SPACES		* NOTE TOTAL GREEN SPACE INCLUDES	
3.42/ACRE		6 SPACES		WOODS PRESERVED	
		42 SPACES			





Financial Feasibility Analysis



Memorandum

To: Town of Barrington Governing Body Members

From: Todd J. Poole, 4ward Planning Inc.

Date: June 20, 2022

Re: Carmelite Monastery Reuse and Redevelopment Financial Feasibility Analysis

Financial Analysis Findings

Financial feasibility analysis was performed on six prospective re-use options for the Carmelite Monastery property in Barrington, Rhode Island. The below table exhibits the six options modeled:

Development Program	1BR	2BR	3BR	Total	Affordable
Reuse Building (29,000 existing s.f.)	22	2	-	24	5
Reuse Building with 12,000 s.f. Addition	22	10	-	32	6
Reuse Building with 21,000 s.f. Addition	32	12	-	44	9
Cottage Court Option 1 (1,500 s.f.)	-	-	8	8	2
Cottage Court Option 2 (1,500 s.f.)	-	-	10	10	2
Cottage Court Option 3 (1,500 s.f.)	-	-	14	14	3

Each of the above development programs is inclusive of a 20-percent affordable housing component, based upon the town of Barrington's stated affordable housing policy objective. The greatest density exhibited among the prospective development programs, as measured by units per acre, is the preserved building with an addition of 21,000 s.f. and total of 44 units (6.3 units per acre). While 6.3 units per acre is relatively high in a suburban community such as Barrington, it is considered low-density development, generally.

While a variety of factors account for whether a real estate development project is financially viable, the factors having greatest influence are typically construction costs, density permitted and lease rates and/or sales prices. Consequently, given that construction costs in most areas around the country (including Rhode Island) have risen more than 40 percent over the past 24 months (with little relief anticipated in the coming few years), coupled with a proposed relatively low-density development, each of the above six development programs failed to achieve financial viability. Further, and as it relates to the multi-family adaptive reuse options, the relatively high ratio of equity

(greater than 60-percent) needed to make any of the options financeable would be untenable to most, if not all prospective developers.

Except for the building reuse option involving a 21,000 s.f. addition and resulting in 44 multi-family rental units, the reuse of the monastery building provides a negative financial return (see the detailed financial feasibility analysis table exhibits in the body of this memo). And while the reuse option involving 44 units exhibited a positive financial return rate, it is far too low a rate of return relative to the project's risk to induce a private developer to undertake the project.

Like the building reuse options, the cottage court new development options were challenged to produce anything other than a sub-par positive return rate (Option 3 involving 14 units) and, thus, would fail to attract private investment for its production.

It is also important to point out that the financial feasibility analysis performed excluded land acquisition costs, as we first attempted to demonstrate financial viability absent land-acquisition (an approach consistent with residual land value analysis). As financial viability could not be achieved absent land acquisition, no residual land value analysis needed to be performed.

The important takeaway from the analysis performed is that there is little economic value, if any, in preserving the Carmelite Monastery, given the absence of financial viability. It is recommended that serious consideration be given to demolishing the building and permitting increased residential density on the site (beyond what has been deemed acceptable to this point), in order to permit a financially viable development and a return of the town's acquisition investment.

Further details on the above analysis findings are found within the body of this memo, including the methodologies and assumptions employed.

Background

4ward Planning and Signal Works Architecture earlier completed a market analysis and adaptive reuse study, respectively, for the Carmelite Monastery property located at 25 Watson Avenue in the town of Barrington, Rhode Island. As part of its charge, 4ward Planning was also tasked with performing an in-depth financial feasibility analysis associated with several hypothetical re-use and redevelopment scenarios, deemed market supportable and architecturally viable.

The principal objectives for performing financial feasibility analyses were (a) to determine if the hypothetical residential reuse and redevelopment programs would be financially viable – permitting a sufficient market rate of return, given the associated risk for undertaking the development project and (b) to identify the prospective residual land values (per acre potential acquisition values) for each prospective re-use/redevelopment scenario, based on a risk appropriate developer return rate.

Methodology

Conventional and locally germane metrics were assumed for development and construction costs (4ward Planning utilized a combination of sources for construction and development cost estimates from Keough Construction Management (a construction cost estimation firm serving as a sub-

consultant to the 4ward Planning team), interviews with Carla Destefano, an experienced and locally active affordable housing developer, and Jordan Durham, an experienced and locally active developer of multi-family residential projects; we also researched third-party construction data covering the Providence market area).

Construction related costs, also known as hard costs, are generally associated with materials, labor and major equipment costs necessary for the construction of physical building space. Construction related costs, conventionally, represent approximately 70 percent of the total project cost (e.g., land acquisition + development + construction costs).

Development related costs, also known as soft costs, cover a myriad of non-construction related costs necessary for the realization of constructing the building (e.g., architectural and engineering design costs; soil and geotechnical studies; attorney and other professional fees; building permit fees; carry costs related to property taxes through building occupancy; construction loan interest; insurances, marketing, and lease-up expenses, etc.). Soft costs will typically represent 17 to 24 percent of total project costs.

The financial analysis performed for the reuse building options (e.g., development and operating pro forma for each scenario examined) were performed on a leveraged basis – that is, each development scenario was modeled with the assumption that a ratio of the total project investment would have a permanent debt component. Our Excel based financial models identified the debt-to-equity ratio for each option modeled based on two key lending metrics: Debt service coverage ratio and the loan to value ratio.

The debt-service coverage ratio (DSCR) is a measure of the cash flow available to pay current debt obligations and a ratio range of 1.20 to 1.25 (meaning cashflow after covering operating expenses is 1.20 to 1.25 the value of annual debt service payments) is considered standard. 4ward Planning utilized the higher (more conservative) ratio of 1.25 as part of its evaluation of the maximum loan the project could carry, using this metric. A five percent (5%) annual rate of interest was assumed (note: interest rates are now rapidly rising due to Federal Reserve inflation fighting policies).

The loan-to-value (LTV) ratio is the amount of money borrowed (the mortgage) relative to the total market value of the project at the time of credit being sought. In commercial real estate lending (as multi-family development is classified), a maximum loan to value ratio is typically 75-percent (this will, of course, vary depending on the project risk, the lender's appetite for risk, and current financial conditions.). 4ward Planning elected to use the 75-percent LTV parameter as part of its evaluation of the maximum loan the project could carry, using this metric.

For each reuse option modeled, the estimated maximum amount of debt the project could carry was based on satisfying both the DSCR and LTV requirements; that is, given the project's net operating income (projected pre-debt service cash-flow), the annual DSCR could not be less than 1.25 beyond the first year and the LTV could not exceed 75 percent of the total project cost. In each of the three reuse options modeled, the estimated maximum debt was determined by the DSCR and accounted for the reuse options carrying a lower amount of debt than would otherwise be permitted using the LTV metric. Consequently, this also resulted in each of the options modeled requiring an

extraordinarily high amount of equity to make the project financeable (greater than 50 percent of total project cost).

The internal rate of return (IRR) was utilized within the pro forma to allow analysis of financial viability. The IRR is the interest rate (also known as the discount rate) that will bring a series of cash flows (positive and negative) to a net present value (NPV) of zero (or to the current value of cash invested). Investors will have varying requirements for the IRR value they seek, given the cost of equity, the project risks and other market factors. However, a benchmark IRR for a leveraged project (one incorporating debt as well as equity) is 10 percent below which the project is considered financially unattractive.

While the project risks associated with adaptively reusing the Carmelite Monastery can be considered above average, we have elected to use the 10 percent IRR as a benchmark to hit or clear, indicating a financially viable project for prospective investors.

Finally, we assumed that the multi-family project would be sold in year 10, which is a reasonable hold period for projects of this size analyzed. Further, and based on the project having permanent loan, we assumed a balloon payment in year 10 – that is, we assumed a term loan of 10 years, and an amortization period of 25 years.

Arriving at Residual Land Value

For Sale Projects: Residual land value is determined by subtracting all estimated development and construction costs from the prospective gross sales revenue. Then, a developer's preferred profit and all estimated sales fee expenses are subtracted from the balance. The remaining value (if any) represents the residual a developer would offer for the acquisition of a subject development parcel.

Leased Property (Investment Property): Residual land value is determined after development and operating pro forma have been created, incorporating all estimated variable costs (e.g., hard and soft costs, but not land acquisition), operating expenses (utilities, insurance, maintenance, management, debt service and taxes) and revenue (effective rent, tenant contributions, parking fees, storage and laundry revenues, etc.). The hold period (that is, the number of years the investor will operate the project before selling it), as well as the capitalization rate (Cap Rate) and outstanding permanent loan, will determine the IRR achieved.

Once the investment hold period is identified, the IRR can be derived utilizing the above-mentioned factors. If the IRR metric is above the benchmark value, that is, above the return rate the investor desires, a monetary value exists to put towards the acquisition of property. This value can only be determined by varying the amount of acquisition cost within the pro forma until the return metric is lowered to the benchmark threshold (that is, if the land acquisition cost value increases to the point that the return metric hits its minimum threshold benchmark, that is the maximum value an investor will be willing to pay for the acquisition of the parcel).

Further, it should be recognized that each prospective development entity will have their own tolerance for risk, have alternative investment choices and have access to different capital cost structures. Consequently, their required financial return metric will differ and, as a result, the

acquisition value they are willing to pay may be more than or less than what the property owner expects to receive.

Finally, the modeled scenarios are based on current and likely market conditions, which are subject to change according to macro level events and, therefore, the reader is advised to utilize these findings with great care.

Build-Out Scenarios Modeled and Key Assumptions

4ward Planning developed an Excel based financial model which allowed for creation of development and operating pro forma associated with multiple development project scenarios, and their associated development iterations.

Much detail was built into both the development and operating pro forma, including estimated annual inflation (escalation) rates, estimated construction development costs, lease/rent rates per square foot, vacancy rates, operating expenses per square foot, debt service expenses (see development and operating assumptions at the end of the financial analysis section write-up for each development scenario).

The pro forma variables having most influence on the prospective financial return rates (e.g., cash-on-cash and internal rate of return) are as follows:

- Residential and commercial construction costs per square foot
- Market residential rental rates
- Residential unit density
- Extraordinary site and/or demolition costs

We were also careful to input variables which are considered market supportable, based on interviews with area developers and a review of publicly available real estate data (e.g., Zillow, Redfin, and rent.com). So, for example, the average per square foot multi-family residential rental rate used ranged from a low of \$1.64 to a high of \$1.98 (\$2,475 to \$1,750 for a two-bedroom and one-bedroom apartment, respectively). The total estimated per square foot development cost (site work, construction, and soft costs) used for the Carmelite Monastery building units ranged from a low of \$321 per square foot for Option 1 (24 units within the existing building) to a high of \$328 per square foot for Option 1b (44 units with a 21,000 s.f. addition) and assumes mid-range finishes and fixtures.

While adjustments to any of the above variables had a noticeable impact on return rates within the cash-flow model, all these variables, with little exception, are subject to market forces and, therefore, cannot be arbitrarily adjusted for purposes of achieving a desired financial result.

The development cost for the single-family “cottage court” units (all of which are modeled as 1,500 s.f. three-bedroom units), absent land value, ranged from a low of \$346 per square foot for the 14-unit build option to a high of \$381 per square foot for the eight-unit option. As the site work costs are fixed, the higher density option (14 units) exhibits the lower cost per square foot. Finishes and fixtures for these units are considered mid-range.

Projected sales prices for the “cottage courts”, based on a review of similar sized houses for sale in Barrington and factoring in the amenity of water views and beach access, is \$400 per s.f. for the market rate units (\$600,000) and \$200 per s.f. for the affordable units (\$300,000). The affordable units are based on 100 percent of current area median income (AMI) for a family of four (\$86,500).

Multi-family				
<u>Development Program</u>				
	<u>O1</u>	<u>O1A</u>	<u>O1B</u>	
Site Area S.F.	304,920	304,920	304,920	
Acres	7.00	7.00	7.00	
Floor Area Ratio	0.10	0.14	0.17	
Total Dwelling Units	24	32	44	
Dwelling Units/Acre	3.4	4.6	6.3	
Total Residential Gross S.F.	29,378	41,378	50,378	
<u>Project Costs</u>				
Estimated Development Cost/S.F.	\$321	\$331	\$328	
Estimated Development Cost/Unit	\$392,550	\$427,698	\$375,627	
Total Development Cost	\$9,421,207	\$13,686,337	\$16,527,607	
Land Acquisition	\$0	\$0	\$0	
Pct. of Project Cost	0.0%	0.0%	0.0%	
10-Year Internal Rate of Return	-2.47%	-2.27%	1.45%	

None of the above scenarios are financially viable, given the projected IRR for each development scenario.

- O1** Option 1 creates 24 multi-family rental units
- O1A** Option 1A adds 12,000 s.f. of new construction and results in 32 total multi-family rental units
- O1B** Option 1B adds 21,000 s.f. of new construction and results in 44 total multi-family rental units.

Option 1: Re-Use Building (24 Units)

	<u>Cost Estimate</u>
Base Building Site Improvements	\$750,000
HAZMAT - Abatement	\$860,000
Base Building - Envelope Improvements	\$646,316
Interior Renovation	\$2,232,728
Elevator Construction	\$150,000
Building M/E/P Including FP	\$2,467,752
Signage/AV	\$73,445
Sub-Total: Hard Costs	\$7,180,241
GC's, GR's & Overhead	\$1,612,206
Construction Escalation	\$628,760
Sub-Total: Soft Costs	\$2,240,966
Total Development Costs	\$9,421,207
Total Development Cost/S.F. @ 29,378 s.f.	\$321
Total Development Cost/Unit @ 24 units	\$392,550

Option 1a: Re-Use Building with 12,000 s.f. Addition (32 Units)

	<u>Cost Estimate</u>
Base Building Site Improvements	\$750,000
HAZMAT - Abatement	\$860,000
Building Addition	\$3,060,000
Base Building - Envelope Improvements	\$646,316
Interior Renovation	\$2,232,728
Elevator Construction	\$150,000
Building M/E/P Including FP	\$2,467,752
Signage/AV	\$73,445
Sub-Total: Hard Costs	\$10,240,241
GC's, GR's & Overhead	\$2,479,206
Construction Escalation	\$966,890
Sub-Total: Soft Costs	\$3,446,096
Total Development Costs	\$13,686,337
Total Development Cost/S.F. @ 41,400 s.f.	\$331
Total Development Cost/Unit @ 32 units	\$427,698

Option 1b: Re-Use Building with 21,000 s.f. Addition (44 Units)

	<u>Cost Estimate</u>
Base Building Site Improvements	\$750,000
HAZMAT - Abatement	\$860,000
Building Addition	\$5,355,000
Base Building - Envelope Improvements	\$646,316
Interior Renovation	\$2,232,728
Elevator Construction	\$150,000
Building M/E/P Including FP	\$2,467,752
Signage/AV	\$73,445
Sub-Total: Hard Costs	\$12,535,241
GC's, GR's & Overhead	\$2,872,206
Construction Escalation	\$1,120,160
Sub-Total: Soft Costs	\$3,992,366
Total Development Costs	\$16,527,607
Total Development Cost/S.F. @ 50,400 s.f.	\$328
Total Development Cost/Unit @ 44 units	\$375,627

Eight Three-Bedroom Cottage Court				
Housing Units		Unit S.F.	Units	Total S.F.
Three-bedroom/two bathroom units (Market)		1,500	6	9,000
Three-bedroom/two bathroom units (Affordable)		1,500	<u>2</u>	<u>3,000</u>
Totals			8	12,000
		Per/S.F.	Per Unit	Cost
Hard Costs (outside of site work)	¹	\$230	\$345,000	\$2,760,000
Site Work Costs	²	\$63	\$93,750	\$750,000
Sub-Total				\$3,510,000
Contingency (@6% of hard costs and site work)	³	\$18	\$26,325	\$210,600
Total Hard Costs		\$310	\$438,750	\$3,720,600
Soft Costs (@23% of total hard costs)	⁴	\$71	\$106,967	\$855,738
Total Development Cost (excluding land)		\$381	\$545,717	\$4,576,338
			Per Unit	Total
Land Cost	⁵		\$0	\$0
Total Development Cost (including land)		\$381	\$545,717	\$4,576,338
		Per/S.F.	Per Unit	Total
Sales Revenue (Market Rate Units)	⁶	\$400	\$600,000	\$3,600,000
Sales Revenue (Affordable Units)	⁷	\$200	\$300,000	\$600,000
Total Sales Revenue				\$4,200,000
Profit/(Deficit)				(\$376,338)

The above development scenario is not financially viable

Notes

- ¹ Based on interviews with local developers and estimates provided by Keough Construction Management.
- ² Based on estimates provided by Keough Construction Management.
- ³ A proportion consistent with real estate development industry standards.
- ⁴ A proportion consistent with real estate industry standards.
- ⁵ Intentionally left blank, as the project's economic factors do not permit an allocation for land purchase.
- ⁶ Based on observed pricing for houses in Barrington of similar size and being of superior quality.
- ⁷ Assumes family of four, five-percent downpayment, 5% interest rate, 30-year fixed loan.

Ten Three-Bedroom Cottage Court				
Housing Units		Unit S.F.	Units	Total S.F.
Three-bedroom/two bathroom units (Market)		1,500	8	12,000
Three-bedroom/two bathroom units (Affordable)		1,500	2	3,000
Totals			10	15,000
		Per/S.F.	Per Unit	Cost
Hard Costs (outside of site work)	1	\$230	\$345,000	\$3,450,000
Site Work Costs	2	\$50	\$75,000	\$750,000
Sub-Total				\$4,200,000
Contingency (@6% of hard costs and site work)	3	\$17	\$25,200	\$252,000
Total Hard Costs		\$297	\$420,000	\$4,452,000
Soft Costs (@23% of total hard costs)	4	\$68	\$102,396	\$1,023,960
Total Development Cost (excluding land)		\$365	\$522,396	\$5,475,960
		Per Unit	Total	
Land Cost	5	\$0	\$0	
Total Development Cost (including land)		\$365	\$522,396	\$5,475,960
		Per/S.F.	Per Unit	Total
Sales Revenue (Market Rate Units)	6	\$400	\$600,000	\$4,800,000
Sales Revenue (Affordable Units)	7	\$200	\$300,000	\$600,000
Total Sales Revenue				\$5,400,000
Profit/(Deficit)				(\$75,960)

The above development scenario is not financially viable

Notes

- ¹ Based on interviews with local developers and estimates provided by Keough Construction Management.
- ² Based on estimates provided by Keough Construction Management.
- ³ A proportion consistent with real estate development industry standards.
- ⁴ A proportion consistent with real estate industry standards.
- ⁵ Intentionally left blank, as the project's economic factors do not permit an allocation for land purchase.
- ⁶ Based on observed pricing for houses in Barrington of similar size and being of superior quality.
- ⁷ Assumes family of four, five-percent downpayment, 5% interest rate, 30-year fixed loan.

Fourteen Three-Bedroom Cottage Court

Housing Units	Unit S.F.	Units	Total S.F.
Three-bedroom/two bathroom units (Market)	1,500	11	16,500
Three-bedroom/two bathroom units (Affordable)	1,500	3	4,500
Totals		14	21,000

		Per/S.F.	Per Unit	Cost
Hard Costs (outside of site work)	¹	\$230	\$345,000	\$4,830,000
Site Work Costs	²	\$36	\$53,571	\$750,000
Sub-Total				\$5,580,000
Contingency (@6% of hard costs and site work)	³	\$16	\$23,914	\$334,800
Total Hard Costs		\$282	\$398,571	\$5,914,800
Soft Costs (@23% of total hard costs)	⁴	\$65	\$97,172	\$1,360,404
<i>Total Development Cost (excluding land)</i>		<i>\$346</i>	<i>\$495,743</i>	<i>\$7,275,204</i>

		Per Unit	Total
Land Cost	⁵	\$0	\$0

Total Development Cost (including land)	\$346	\$495,743	\$7,275,204
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		Per/S.F.	Per Unit	Total
Sales Revenue (Market Rate Units)	⁶	\$400	\$600,000	\$6,600,000
Sales Revenue (Affordable Units)	⁷	\$200	\$300,000	\$900,000
Total Sales Revenue				\$7,500,000

Profit/(Deficit)				\$224,796
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While the above scenario exhibits a positive return, the profit rate is far too low to attract a private investor, given the project risk and effort.

Notes

¹ Based on interviews with local developers and estimates provided by Keough Construction Management.

² Based on estimates provided by Keough Construction Management.

³ A proportion consistent with real estate development industry standards.

⁴ A proportion consistent with real estate industry standards.

⁵ Intentionally left blank, as the project's economic factors do not permit an allocation for land purchase.

⁶ Based on observed pricing for houses in Barrington of similar size and being of superior quality.

⁷ Assumes family of four, five-percent downpayment, 5% interest rate, 30-year fixed loan.

[illegible]

Preserved Building with 12,000 s.f. Addition													
32 Multi-family Rental Units													
	Notes	Build Year 1	Build Year 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assumptions - Rental Units (flats)	3.00%			1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30
Inflation Factor/Escalation				32	32	32	32	32	32	32	32	32	32
Units	825			825	825	825	825	825	825	825	825	825	825
Average Unit Size (Gross s.f.)				22	30	30	30	30	30	30	30	30	30
Vacancy Factor (Stabilized)	5.00%			\$27.83	\$28.66	\$29.52	\$30.41	\$31.32	\$32.26	\$33.22	\$34.22	\$35.25	\$36.31
Weighted Average Annual Rent/s.f.	\$27.83			\$734,580	\$756,617	\$779,316	\$802,695	\$826,776	\$851,580	\$877,127	\$903,441	\$930,544	\$958,460
Gross Rental Revenue				\$514,206	\$718,787	\$740,350	\$762,561	\$785,437	\$809,001	\$833,271	\$858,269	\$884,017	\$910,537
Net Rent Revenue (after vacancy & credit loss)				\$35,994	\$50,315	\$51,825	\$53,379	\$54,981	\$56,630	\$58,329	\$60,079	\$61,881	\$63,738
Other Revenue at 7% of Net Rental Revenue	7%			\$550,200	\$769,102	\$792,175	\$815,940	\$840,418	\$865,631	\$891,600	\$918,348	\$945,898	\$974,275
Total Net Revenue				\$279,140	\$287,515	\$296,140	\$305,024	\$314,175	\$323,600	\$333,308	\$343,307	\$353,607	\$364,215
Building OpEx/S.F. (38% of Weighted Avg. Rent)	\$10.57			\$271,060	\$481,587	\$496,035	\$510,916	\$526,243	\$542,030	\$558,291	\$575,040	\$592,291	\$610,060
Net Operating Income (NOI)				\$514,206	\$718,787	\$740,350	\$762,561	\$785,437	\$809,001	\$833,271	\$858,269	\$884,017	\$910,537
Net Operating Income				\$271,060	\$481,587	\$496,035	\$510,916	\$526,243	\$542,030	\$558,291	\$575,040	\$592,291	\$610,060
Total Net Operating Income				(\$385,270)	(\$385,270)	(\$385,270)	(\$385,270)	(\$385,270)	(\$385,270)	(\$385,270)	(\$385,270)	(\$385,270)	(\$385,270)
Debt Service (Construction and Permanent Financing)				0.70	1.25	1.29	1.33	1.37	1.41	1.45	1.49	1.54	1.58
DSCR				0.00%	1.18%	1.35%	1.53%	1.72%	1.91%	2.11%	2.32%	2.53%	2.74%
Annual Cash Flow (before income taxes)				\$114,210	\$96,317	\$110,765	\$125,646	\$140,974	\$156,761	\$173,022	\$189,770	\$207,022	\$224,790
Cash-on-Cash Rate of Return													66.10%
Construction & Development Costs													
Development Cost per Unit	\$427,698												
Total Square Feet	41,378												
Development Cost/S.F.	\$331												
Land Acquisition/Property Acquisition	\$0												
Capital Reserves	\$0												
Third Party Equity (public sources)	\$0												
Total Development Costs	\$13,686,337												
Equity as a Percentage of Total Development Costs				\$0									
Developer Equity Invested	\$8,194,318												
Equity as a Percentage of Total Development Costs	60%												
Annual Cash Flow													
Annual Operating Cash Flow - Before Income Taxes				\$0	\$96,317	\$110,765	\$125,646	\$140,974	\$156,761	\$173,022	\$189,770	\$207,022	\$224,790
Asset Value (based on exit Cap Cost)	6.00%												\$10,167,666
Cost of Sale	5.00%												(\$508,383)
Residual Loan Balance	-\$4,467,322												(\$4,467,322)
Net Cash Flow				\$0	\$96,317	\$110,765	\$125,646	\$140,974	\$156,761	\$173,022	\$189,770	\$207,022	\$5,416,751
10-Year Internal Rate of Return (IRR)	-2.27%												
Financing Assumptions													
Project Debt	\$5,492,019												
Project Equity	\$8,194,318												
Term (years)	10												
Amortization	25												
Financing Rate	5.00%												
Debt Coverage Ratio	1.25												
Total Project Cost	\$13,686,337												
Maximum Loan Based on Debt Service Coverage Ratio													
Mortgage Constant	7.015%												
Available DS	\$385,270												
Max Loan	\$5,492,019												
NOI	\$481,587												
Cap Rate	6.00%												
Cap Value	\$8,026,450												
LTV Ratio	75%												
Max Loan	\$6,019,837												
Maximum Loan Based on Loan to Value Ratio													
Cap Value	\$8,026,450												
LTV Ratio	75%												
Max Loan	\$6,019,837												
Maximum Loan Based on Loan to Value Ratio													
Cap Value	\$8,026,450												
LTV Ratio	75%												
Max Loan	\$6,019,837												
Maximum Loan Based on Loan to Value Ratio													
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Max Loan	\$6,019,837												
Maximum Loan Based on Loan to Value Ratio													
Cap Value	\$8,026,450												
LTV Ratio	75%												
Max Loan	\$6,019,837												
Maximum Loan Based on Loan to Value Ratio													
Cap Value	\$8,026,450												
LTV Ratio	75%												
Max Loan	\$6,019,837												
Maximum Loan Based on Loan to Value Ratio													
Cap Value	\$8,026,450												

Preserved Building with 21,000 s.f. Addition														
44 Multi-family Rental Units														
Notes	Build Year 1		Build Year 2		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	Assumptions - Rental Units (flats)													
Inflation Factor/Escalation	3.00%				1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30
Units	44				44	44	44	44	44	44	44	44	44	44
Average Unit Size (Gross s.f.)	809				809	809	809	809	809	809	809	809	809	809
Vacancy Factor (Stabilized)	5.00%				31	42	42	42	42	42	42	42	42	42
Weighted Average Annual Rent/s.f.	\$30.22				\$30.22	\$31.12	\$32.06	\$33.02	\$34.01	\$35.03	\$36.08	\$37.16	\$38.28	\$39.43
Gross Rental Revenue					\$1,075,767	\$1,108,040	\$1,141,281	\$1,175,520	\$1,210,786	\$1,247,109	\$1,284,522	\$1,323,058	\$1,362,750	\$1,403,632
Net Rent Revenue (after vacancy & credit loss)					\$753,037	\$1,052,638	\$1,084,217	\$1,116,744	\$1,150,246	\$1,184,754	\$1,220,296	\$1,256,905	\$1,294,612	\$1,333,451
Other Revenue at 7% of Net Rental Revenue	7%				\$52,713	\$73,685	\$75,895	\$78,172	\$80,517	\$82,933	\$85,421	\$87,983	\$90,623	\$93,342
Total Net Revenue					\$805,750	\$1,126,323	\$1,160,113	\$1,194,916	\$1,230,764	\$1,267,686	\$1,305,717	\$1,344,889	\$1,385,235	\$1,426,792
Building OpEx/S.F. (38% of Weighted Avg. Rent)	\$11.48				\$408,792	\$421,055	\$433,687	\$446,698	\$460,099	\$473,901	\$488,119	\$502,762	\$517,845	\$533,380
Net Operating Income (NOI)					\$396,958	\$705,268	\$726,426	\$748,218	\$770,665	\$793,785	\$817,598	\$842,126	\$867,390	\$893,412
Net Operating Income					\$753,037	\$1,052,638	\$1,084,217	\$1,116,744	\$1,150,246	\$1,184,754	\$1,220,296	\$1,256,905	\$1,294,612	\$1,333,451
Leasing Revenues					\$396,958	\$705,268	\$726,426	\$748,218	\$770,665	\$793,785	\$817,598	\$842,126	\$867,390	\$893,412
Total Net Operating Income					(\$564,214)	(\$564,214)	(\$564,214)	(\$564,214)	(\$564,214)	(\$564,214)	(\$564,214)	(\$564,214)	(\$564,214)	(\$564,214)
Debt Service (Construction and Permanent Financing)					0.70	1.25	1.29	1.33	1.37	1.41	1.45	1.49	1.54	1.58
DSCR					0.00%	1.66%	1.91%	2.17%	2.43%	2.71%	2.99%	3.28%	3.57%	3.86%
Annual Cash Flow (before income taxes)					\$167,256	\$141,054	\$162,212	\$184,004	\$206,451	\$229,571	\$253,384	\$277,912	\$303,176	\$329,198
Cash-on-Cash Rate of Return														
Construction & Development Costs														
Development Cost per Unit														
Total Square Feet														
Development Cost/S.F.														
Land Acquisition/Property Acquisition														
Capital Reserves														
Third Party Equity (public sources)														
Total Development Costs					\$16,527,607	\$16,527,607	\$16,527,607	\$16,527,607	\$16,527,607	\$16,527,607	\$16,527,607	\$16,527,607	\$16,527,607	\$16,527,607
Equity as a Percentage of Total Development Costs														
Developer Equity Invested					\$8,484,733	\$8,484,733	\$8,484,733	\$8,484,733	\$8,484,733	\$8,484,733	\$8,484,733	\$8,484,733	\$8,484,733	\$8,484,733
Annual Operating Cash Flow - Before Income Taxes														
Asset Value (based on exit Cap Cost)														
Cost of Sale														
Residual Loan Balance														
Net Cash Flow														
10-Year Internal Rate of Return (IRR)														
Financing Assumptions														
Project Debt														
Project Equity														
Term (years)														
Amortization														
Financing Rate														
Debt Coverage Ratio														
Total Project Cost														
Maximum Loan Based on Debt Service Coverage Ratio														
Available DS														
Mortgage Constant														
7.015%														
Maximum Loan Based on Loan to Value Ratio														
Cap Rate														
Cap Value														
LTV Ratio														
75%														
Max Loan														
\$8,815,846														
-\$1,500,634														

24 Multi-family Unit Detail

Dwelling Unit Type	Units	Market Rate	Affordable Income	Net SqFt/Unit	Market Monthly Rent/S.F.	Market Monthly Rent	Affordable Monthly Rent/S.F.	Affordable Monthly Rent	Weighted Average Rent/S.F.	Weighted Average Rent/Unit
Apartments										
Studio	0	0	0	0	\$0.00	\$0	\$0.00	\$0		
1-BR	22	18	4	700	\$2.50	\$1,750	\$1.98	\$1,386		
2-BR	2	1	1	1,100	\$2.25	\$2,475	\$1.64	\$1,804		
3-BR	0	0	0	0	\$0.00	\$0	\$0.00	\$0		
Totals & Weighted Averages	24	19	5	733	\$2.49	\$1,788	\$1.91	\$1,469.60	\$2.37	\$1,736
Total	24	19	5							

32 Multi-family Unit Detail

Dwelling Unit Type	Units	Market Rate	Affordable Income	Net SqFt/Unit	Market Monthly Rent/S.F.	Market Monthly Rent	Affordable Monthly Rent/S.F.	Affordable Monthly Rent	Weighted Average Rent/S.F.	Weighted Average Rent/Unit
Apartments										
Studio	0	0	0	0	\$0.00	\$0	\$0.00	\$0		
1-BR	22	18	4	700	\$2.50	\$1,750	\$1.98	\$1,386		
2-BR	10	8	2	1,100	\$2.25	\$2,475	\$1.64	\$1,804		
3-BR	0	0	0	0	\$0.00	\$0	\$0.00	\$0		
Totals & Weighted Averages	32	26	6	825	\$2.42	\$1,973	\$1.87	\$1,525	\$2.32	\$1,913
Total	32	26	6							

44 Multi-family Unit Detail

Dwelling Unit Type	Units	Market Rate	Affordable Income	Net SqFt/Unit	Market Monthly Rent/S.F.	Market Monthly Rent	Affordable Monthly Rent/S.F.	Affordable Monthly Rent	Weighted Average Rent/S.F.	Weighted Average Rent/Unit
Apartments										
Studio	0	0	0	0	\$0.00	\$0	\$0.00	\$0		
1-BR	32	26	6	700	\$2.75	\$1,925	\$1.98	\$1,386		
2-BR	12	9	3	1,100	\$2.50	\$2,750	\$1.64	\$1,804		
3-BR	0	0	0	0	\$0.00	\$0	\$0.00	\$0		
Totals & Weighted Averages	44	35	9	809	\$2.69	\$2,137	\$1.87	\$1,525	\$2.52	\$2,037
Total	44	35	9							



Traffic Study

August 3, 2022

Eric Army
Signal Works Architecture
11 Aleppo Street
Providence, RI 02909

**RE: Trip Generation Assessment – Carmelite Monastery
25 Watson Avenue, Barrington, RI 02806**

Dear Mr. Army:

McMahon Associates has completed a trip generation assessment for the proposed redevelopment of the Carmelite Monastery (herein referred to as the "Project") located at 25 Watson Avenue in Barrington, Rhode Island. The site is currently occupied by the vacant Carmelite Monastery building, which has a gross floor area of approximately 29,400 square feet. Site access is provided via two unsignalized driveways on the northern and southern ends of the property.

Conceptual plans for three Project alternatives were prepared by Traverse Landscape Architects: alternative one would repurpose the existing building and create 24 residential units; alternative two would repurpose the existing building and incorporate a 21,000 square foot building addition for a total of 44 residential units; and alternative three would repurpose the existing building to create 24 residential units and construct an additional 10 duplexes. For baseline comparative purposes, razing the property and replacing it with nine single family lots, consistent with the surrounding neighborhood, was considered as a Base condition. All three alternatives would include outdoor walking trails and approximately five acres of green space. Access to the Project would be provided via three unsignalized full-access driveways: two on Watson Avenue and one on Freemont Avenue, both streets provide access to Nayatt Road which would serve as a connection to the surrounding roadway network. With the construction of alternative three, the four proposed duplex units with frontage along Freemont Avenue would have separate driveways in addition to the aforementioned full-access site driveways. A summary of the alternatives is presented in Table 1 below.

Table 1: Summary of Alternatives

Condition	Land Use	Size	Access
Existing Condition	Monastery	29,400 s.f.	2 Driveways
Base Condition	Single-Family Residential (Detached)	9 units	9 Driveways
Alternative 1	Multifamily Residential	24 units (29,400 s.f.)	3 Driveways
Alternative 2	Multifamily Residential	44 units (50,000 s.f.)	3 Driveways
Alternative 3	Multifamily Residential & Single-Family Residential (Attached)	24 multifamily units & 10 duplexes	7 Driveways

Study Area Roadways

Nayatt Road extends in the east-west direction for a length of approximately two miles between Washington Road and Rumstick Road in the Town of Barrington. East of its intersection with Middle Highway, Nayatt Road is classified as an urban minor arterial. West of its intersection with Middle Highway, Nayatt Road is classified as an urban major collector. Nayatt Road is under Rhode Island Department of Transportation (RIDOT) jurisdiction, providing access to residential properties. In the vicinity of the Project site, Nayatt Road measures approximately 21 feet wide and accommodates two-way travel. The posted speed limit in the vicinity of the Project site is 25 miles per hour (mph). Sidewalks are not provided on either side of Nayatt Road in the vicinity of the project area.

Watson Avenue extends in the north-south direction between Nayatt Road and Payne Road in the Town of Barrington and is classified as a local roadway under Town of Barrington jurisdiction, providing access to residential properties. In the vicinity of the Project site, Watson Avenue measures approximately 20 feet wide and accommodates two-way travel. No sidewalks are provided on either side of the roadway, and no speed limits are posted in either direction in approaching the Project site. Longitudinal pavement markings are not provided on Watson Avenue.

Freemont Avenue extends in the north-south direction south of Nayatt Road and is classified as a local road under Town of Barrington jurisdiction, providing access to residential properties. In the vicinity of the Project site, Freemont Avenue measures approximately 15 feet wide and accommodates two-way travel. No sidewalks are provided on either side of the roadway, and no speed limits are posted in either direction approaching the project site. Longitudinal pavement markings are not provided on Freemont Avenue.

Trip Generation Review

To determine the number of vehicle trips associated with all three alternatives for the proposed Project, a trip generation assessment was completed using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*. ITE is a national research organization of transportation professionals, and the *Trip Generation Manual* publication provides traffic generation information for various land uses compiled from studies conducted by members nationwide. This reference establishes vehicle trip rates based on actual traffic counts conducted at similar existing sites. The trip generation assessment completed for the proposed Project included a review of the weekday morning and weekday afternoon peak hours of adjacent street traffic.

Vehicle trip estimates for alternatives one and two were developed based on ITE data for Land Use Code 220 (Multifamily Housing (Low-Rise) – Not Close to Rail Transit), and trip generation estimates for alternative three were developed using Land Use Codes 220 and 215 (Single-Family Attached Housing). The resulting trips associated with each development alternative are displayed in Table 2, Table 3 and Table 4 for alternatives one through three, respectively. Table 5 presents the trip generation estimates for the Base condition, which would consist of nine single-family detached residential units, consistent with the surrounding neighborhood. Trip generation estimates for this condition were developed using Land Use Code 210 (Singly-Family Detached Housing).

Table 2: Trip Generation Estimate – Alternative 1

Description	Size	Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Multifamily Residential Development ¹	24 d.u.	7	23	30	19	11	30

¹ ITE Land Use Code 220 (Multifamily Housing (Low-Rise) - Not Close to Rail Transit) based on 24 dwelling units.

As shown in Table 2, development alternative one is shown to result in approximately 30 new trips (seven entering vehicles and 23 exiting vehicles) during the weekday morning peak hour and approximately 30 new trips (19 entering vehicles and 11 exiting vehicles) during the weekday afternoon peak hour.

Table 3: Trip Generation Estimate – Alternative 2

Description	Size	Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Multifamily Residential Development ¹	44 d.u.	9	28	37	25	15	40

¹ ITE Land Use Code 220 (Multifamily Housing (Low-Rise) - Not Close to Rail Transit) based on 44 dwelling units.

As shown in Table 3, development alternative two is shown to generate approximately 37 new trips (nine entering vehicles and 28 exiting vehicles) during the weekday morning peak hour and approximately 40 new trips (25 entering vehicles and 15 exiting vehicles) during the weekday afternoon peak hour.

Table 4: Trip Generation Estimate – Alternative 3

Description	Size	Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Multifamily Residential Development ¹	24 d.u.	7	23	30	25	15	40
Single-Family Attached Residential Development ²	10 d.u.	1	3	4	3	2	5
Estimated Project Trips		8	26	34	28	17	45

1 ITE Land Use Code 220 (Multifamily Housing (Low-Rise) - Not Close to Rail Transit) based on 24 dwelling units.

2 ITE Land Use Code 215 (Single-Family Attached Housing) based on 10 dwelling units.

As shown in Table 4 above, development alternative three is shown to generate approximately 34 new trips (eight entering vehicles and 26 exiting vehicles) during the weekday morning peak hour and approximately 45 new trips (28 entering vehicles and 17 exiting vehicles) during the weekday afternoon peak hour. All three development alternatives would result in less than one new trip every minute during both peak hours reviewed.

Table 5: Trip Generation Estimate – Base Conditions

Description	Size	Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Single-Family Detached Residential Development ¹	9 d.u.	2	6	8	7	4	11

1 ITE Land Use Code 210 (Single-Family Detached Housing) based on 9 dwelling units.

As shown in Table 5 above, the development of nine residential lots under Base conditions is shown to generate approximately 8 new trips (2 entering vehicles and 6 exiting vehicles) during the weekday morning peak hour and approximately 11 new trips (7 entering vehicles and 4 exiting vehicles) during the weekday afternoon peak hour.

Based on the data presented above, Project alternatives 1 through 3 are shown to generate up to 34 additional new trips when compared with the nine residential lots under Base conditions. Table 6 below presents a comparison of the trip generation for alternatives 1 through 3 to the trip generation for the Base condition.

Table 6: Trip Generation Comparison

Conditions	Weekday AM				Weekday PM			
	In	Out	Total	Difference to Base	In	Out	Total	Difference to Base
Base	2	6	8	---	7	4	11	---
Alternative 1	7	23	30	+22	19	11	30	+19
Alternative 2	9	28	37	+29	25	15	40	+29
Alternative 3	8	26	34	+26	28	17	45	+34

The trip generation estimates presented in Tables 2 through 4 above assume that the dwelling units are open to tenants of all ages. If the dwelling units were to be age restricted, the weekday morning and weekday afternoon peak hour new trips are shown to be as much as 76 percent lower than the estimates shown above.

Site Circulation

Access to the Project would be provided via two full-access driveways on Watson Avenue and one full-access driveway on Freemont Avenue, which as noted above, both connect with Nayatt Road that serves as a connection to the nearby roadway network. Under alternative three conditions, duplex units one through four on Freemont Avenue would have individual driveways, thereby reducing the number of vehicles utilizing the full-access Freemont Avenue site driveway. Vehicles would be able to access both the building and the walking trails from all three site driveways. The proposed access to the site is via both roadways, which would better distribute entering and exiting traffic volumes and reduce operational impacts on both Watson Avenue and Freemont Avenue.

Conclusion

Based on a review of the trip generating characteristics associated with the proposed Project, development alternative one is estimated to result in approximately 30 new trips (seven entering vehicles and 23 exiting vehicles) during the weekday morning peak hour and approximately 30 new trips (19 entering vehicles and 11 exiting vehicles) during the weekday afternoon peak hour. Development alternative two is estimated to result in approximately 37 new trips (nine entering vehicles and 28 exiting vehicles) during the weekday morning peak hour and approximately 40 new trips (25 entering vehicles and 15 exiting vehicles) during the weekday afternoon peak hour. Alternative three is estimated to result in approximately 34 new trips (eight entering vehicles and 26 exiting vehicles) during the weekday morning peak hour and approximately 45 new trips (28 entering vehicles and 17 exiting vehicles) during the weekday afternoon peak hour.

The estimated trip generation for Project alternatives 1 through 3 are shown to generate up to 34 additional new trips when compared with the nine residential lots under Base conditions. The three alternatives analyzed, however, are projected to result in less than one vehicle per minute during the weekday peak hours analyzed.

Based on the trip generation data presented above, conversion of the dwelling units to age-restricted housing is shown to reduce the daily trip generation by as much as 76 percent. The peak hours of entering and exiting vehicles for age-restricted housing generally do not coincide with the peak hours of adjacent street traffic, resulting in a more even distribution of vehicles throughout the day.

Access to the site would be provided via three full-access driveways, two on Watson Avenue and one on Freemont Avenue. Given the multiple access points and trip generating characteristics of the site, the Project is not expected to have a significant impact on operations of the surrounding roadway network.

Please do not hesitate to contact us should you require any further information.



Maureen Chlebek, P.E., PTOE

Vice President & Regional Manager – New England



ZONING

Summary

While the town can customize the zoning at 25 Watson, it is suggested to work within the current zoning context and standards to create the simplest regulatory conditions possible, using as much existing framework as feasible. This can streamline implementation and create the least unintended precedent or other disturbance. Below is an initial assessment comparing the proposed uses and the current state of the zoning code, identifying pathways to compliance. This serves as an initial discussion point to be vetted by Town Planning Staff, the Planning Board, and Legal Counsel. It should be kept in mind that new zones or major modifications to uses or other requirements have the potential to set or imply precedent, which could be looked at in the context of the Town's goals within its Comprehensive Plan.

Proposed Use Options

The Design Funnel's proposed options include 2 types of uses, both of which have limited application under current zoning:

- Multi-Family
- Semi-Detached Single Family

Multi-family

This use is currently only allowed in business zones (B/RBF & EH). Allowing this in a Residential Zone would require a Use Variance, which generally comes with a very high legal bar of "no beneficial use". Because of the development process, the Lot / Zone should be delivered to developers with use "by right", not requiring them to seek additional waivers.

Options:

- Create a new zone that allows Multi-Family and other Residential uses, but not Business uses (ie, Residential Multifamily "R-MF")
- Use a Zoning Map Amendment (not a zone change) to allow "Multi-Family Use" on the property, while maintaining existing Residential zones (such as R-40 or R-25).

Semi-Detached Single Family

In the Zoning Code, the use of Duplex is not allowed by-right, unless 50% of the units are affordable, and 2x the lot area of a similar single-family house is provided. In practice, it does not provide additional density over single-family zoning. Cottages as Use, are physically defined in "Senior Residential Community" (SRC) use, but only with senior residential requirements, and are not allowed as attached or duplex units. Another semi-detached single family, such as Rowhouses, townhouses aren't described under zoning

Options:

- If use is Senior Housing, use the existing "Senior Residential Village" (SRV) zone, with "Senior Residential Community" (SRC) Use. Amend section to allow semi-detached/duplex, if desired.
- If use is multi-generational, create a "Residential Community" (RC) Use using SRC physical description, without age restriction. Then an existing zone would need to be amended to allow "RC" uses, or a new zone (ie, "Residential Village" RV) would need to be created.



ZONING

Zone Options

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Below is an initial assessment comparing the proposed uses and the current state of the zoning code, identifying pathways to compliance. This serves as an initial discussion point to be vetted by Town Planning Staff, the Planning Board, and Legal Counsel.

It should be kept in mind that new zones or major modifications to uses or other requirements have the potential to set or imply precedent, which could be looked at in the context of the Town's goals within its Comprehensive Plan.

The final site zoning would likely either be:

- R-25 w/ zoning map amendment to allow Multi-Family or Senior/Residential Community (Cottages, age-restricted or not)
- Senior Residential Village (SRV), which allows Senior Residential Community (ie, Cottages). A zoning map amendment could allow Multi-Family on this lot only.
- New "Residential Village" Zone (ie, Non-Senior version of SRV), allowing cottages
- New "Residential – Multi-Family" Zone that allows a variety of residential development, including multi-family

Natural Buffers:

To ensure the natural buffers identified as a priority were codified into zoning, there are a few paths:

- Create conservation easements (a prescriptive option, which gives little latitude to the future design configuration)
- Create performance requirement to preserve 3 acres of existing woodland on N & W edges as part of the development agreement (this will require planning board review, but give the most flexibility for a quality design strategy)

50 ft Setback Options:

To ensure a 50ft setback, consistent with the neighboring R-40 zone, there are multiple paths:

- If SRV zone, setbacks are up to the planning board who would be responsible for enforcing this setback, or amendments could be added to this lot (see zoning 185-227)
- If R-25 w/ Multi-family allowed, dimensional setback restriction needed in excess of base zoning, possibly via zoning map amendment?
- If New Zone, this setback could be written into zone or, more preferably, included as a zoning map amendment.



ZONING

Zone Stress Test

For existing zones, we took a brief initial analysis regarding how a use analysis would regard the site:

R-25 w/ amendments allowing Multi-Family or SRC, up to a certain number of units:

Allowable Uses:

Not currently allowed (because of building preservation requirements):

- Knockdown building and build 20+ single family (or duplex with 50% affordable)
- Knockdown building and zone SRC with 25 free-standing cottages, 50% affordable
- Knockdown building and Build a new multi-family up to the # limit

The current recommended uses:

- Keep building and adding on, up to the # limit of Multi-Family units on-site
- Keep building and build SRC with 8 to 14 free-standing cottages (4 to 8 affordable)
- Keep building and Build a new multi-family up to the # limit

SRV or Non-Senior SRV

- Only SRC is allowed by Use (40 to 50 units per planning board approval)
- Multi-family would need to be allowed by zoning map. (Currently Keeping the building is required, which limits developable area if Multi-Family is not allowed by amendment.)
- Currently full cottage development in “not recommended” by the Ad-Hoc committee category